

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922



Subject: CHECK ENGINE LIGHT ON WITH DTC P20F8	Bulletin No.: 01-003/26
	Last Issued : 04/30/2026

BULLETIN NOTES

This bulletin supersedes the previously issued bulletin(s) listed below. The changes are noted in Red text.

Previous TSBs:	Date(s) Issued:
01-003/26	01/30/26

APPLICABLE MODEL(S)/VINS

- 2023-2025 CX-30 (Mexico built) vehicles with VINs lower than 3MV DM**** ** 870015 (Produced before Sept. 5, 2025)
- 2024-2025 CX-5 vehicles with VINs lower than JM3 KF**** ** 756981 (Produced before Sept. 5, 2025)
- 2024-2025 CX-50 vehicles with VINs lower than 7MM VA**** ** 391831 (Produced before Sept. 5, 2025)
- 2023-2025 Mazda3 (Japan built) vehicles with VINs lower than JM1 BP**** ** 797298 (Produced before Sept. 5, 2025)
- 2023-2025 Mazda3 (Mexico built) vehicles with VINs lower than 3MZ BP**** ** 479955 (Produced before Aug. 18, 2025)

DESCRIPTION

Some vehicles may exhibit a check engine light ON with DTC P20F8:00 stored.

- P20F8:00 - Swirl control circuit range/performance problem.

In these cases, increasing temperature levels of the Swirl Control Valve (SCV) motor due to excessive actuation leads to duty limitation, causing poor opening angle response and resulting in a stuck judgment. To eliminate this concern, the PCM logic has been modified.

Customers having this concern should have their vehicle repaired using the following repair procedure.

REPAIR PROCEDURE

1. Confirm the condition exists.

Does the vehicle exhibit a MIL on with DTC P20F8:00 (Swirl control circuit range/performance problem) present?

- YES - Continue to Step 2.
- NO - This bulletin does NOT apply. Continue diagnosis using the instructions on MGSS online.

2. Use Mazda Modular Diagnostic System (M-MDS) to confirm if the ECU calibration has been updated.

Is the calibration file listed in MDARS the latest PCM calibration?

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical--including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

- YES - This bulletin does NOT apply. Continue diagnosis using the instructions on MGSS online.
- NO - Continue to Step 3.

3. Reprogram the PCM with the Mazda Modular Diagnostic System (M-MDS), using Mazda Diagnostic and Repair Software (MDARS). Refer to MDARS ECU Reprogramming Procedure.

NOTE: Be sure to submit Diagnostic Information (ODR) data as it is a required item and will be checked during warranty claim submission. Instructions can be found under M-MDS -> MDARS (Uploading Diagnostic Information (ODR) Data).

4. Clear any other DTCs.

5. Verify the repair by starting the engine (READY ON) and confirming there is no CHECK ENGINE light ON or abnormal warning lights present.

CALIBRATION

ECU	Model	File Name (Old)	File Name (New)	Actual time to reprogram
PCM	MAZDA3 (BP)	PXPJ-188K2-G	PXPJ-188K2-H	3 min.
		PXPH-188K2-G	PXPH-188K2-H	
		PXRX-188K2-G	PXRX-188K2-H	
		PXRW-188K2-G	PXRW-188K2-H	
		PW29-188K2-D	PW29-188K2-E	
		PW30-188K2-E	PW30-188K2-F	
		PW53-188K2-C	PW53-188K2-D	
		PW84-188K2-E	PW84-188K2-F	
		PW88-188K2-E	PW88-188K2-F	
		PW4N-188K2-B	PW4N-188K2-C	
		PW4P-188K2-B	PW4P-188K2-C	
		PW4R-188K2-A	PW4R-188K2-B	
		PW4T-188K2-B	PW4T-188K2-C	
		PW4V-188K2-B	PW4V-188K2-C	
		PXMT-188K2-G	PXMT-188K2-H	
		PXRR-188K2-G	PXRR-188K2-H	
		PXMW-188K2-G	PXMW-188K2-H	
		PXRS-188K2-G	PXRS-188K2-H	
		PXNA-188K2-G	PXNA-188K2-H	

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical--including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

		PXRT-188K2-G	PXRT-188K2-H
		PXPH-188K2-G	PXPH-188K2-H
		PXRW-188K2-G	PXRW-188K2-H
		PXPJ-188K2-G	PXPJ-188K2-H
		PXRX-188K2-G	PXRX-188K2-H
	CX-30 (DM)	PW4S-188K2-B	PW4S-188K2-C
		PW72-188K2-E	PW72-188K2-F
		PXNT-188K2-H	PXNT-188K2-J
		PXRV-188K2-H	PXRV-188K2-J
	CX-50 (VA)	PWR9-188K2-F	PWR9-188K2-G
	CX-5 (KF)	PW67-188K2-E	PW67-188K2-F
		PW66-188K2-E	PW66-188K2-F

NOTE: This Service Information is only applicable for vehicles using the above calibration files.

WARRANTY INFORMATION

NOTE:

This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.

This repair will be covered under Federal Emission Warranty.

Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	6X
Damage Code	9W
Causal Part No.	5555-18-881
Quantity	0
Operation No. and Labor Hours	XXX59XFX / 0.3 Hrs.

After the reprogramming, be sure to keep a copy of the screen of the ECU FILENAME on M-MDS along with the repair order and warranty application sheet.

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical--including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.